Course Syllabus

Technology and Accessibility

SI 552
Fall 2016
Professor: Joyojeet Pal
Th 1:00PM-4:00PM
1265 NQ

Instructor: Joyojeet Pal
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joyojeet@umich.edu

This class has no prerequisites and is open to students from all departments

OVERVIEW:

Diversity in the social and economic spheres is one of the fundamental tenets of our society. Yet, accessibility for people with disabilities continues to be a very significant issue in both public mobility and socio-economic access in an increasingly digital world. An understanding of accessibility is particularly important for information professionals, who will work at the forefront of either building information systems or working on the provision of public access to information services.

This class is meant to be an introduction to disability studies and accessibility. Students are introduced to issues around disability and technology use. In the first half of the class, students will learn about contemporary discourses on disability as a social, cultural, historical and political phenomenon. Students will also get an overview of the global issues in disability-related policy and activism, with particular attention to international conventions.

The second half of the class introduces students to various kinds of assistive technology, and accessibility in the digital domain. Students will learn through demonstration and some hands-on access, some of the commonly used assistive technologies such as screen readers, magnifiers, and augmentative and alternative communication devices as well as mobile-based apps for accessibility.
LEARNING OBJECTIVES:

The class is meant to give students with no prior experience with either disability studies or with assistive technologies an introduction to the key contemporary issues around accessibility.

By the end of SI 552, all students are expected to be able to:

- Discuss the issues around the history and politics of disability, the origins of the disability rights movement, and its impact on accessibility and assistive technology
- Identify some of the contemporary issues around accessibility – in ways the geographical spaces and the public sphere can be inaccessible, identify the impediments to diversity in the workplace.
- Understand the basics of assistive technologies – identify the key options available based on specific impairments, and know the current state of the art on these technologies
- Recognize their roles in building accessibility into their practice as information professionals

These learning objectives will be met through a combination of readings, lectures, discussion, and individual and small group assignments, as described below.

RECOMMENDED BOOKS AND READINGS:

No books are required, all readings are available through the digital library

MULTIMEDIA:

There will be a number of assigned audio and video material as part of the class. Students will be kept informed in advance for any required materials. All the assigned videos with subtitles are available on the course site.

REQUIREMENTS:
Since this is a reading-heavy class, our goal is to minimize the project burden and ensure that following the readings is adequately recognized in determining your grade.

Readings: 30%
Discussion: 10%
In-class technology tutorial (GROUP) 20%
Real-world accessibility challenge (GROUP) 20%
Final Paper (INDIVIDUAL OR GROUP): 20%

Readings: (30%)

To appropriately recognize the importance of class readings for this course, the readings have a very significant weight in your overall grade for the class. There are 30 readings for 1 point each, spread throughout the various weeks.

For each reading, you need to upload a 'review' of 100-200 wds very briefly summarizing the reading and expressing the key questions that a reading raised for you. Each review needs to be submitted by 11.59 PM the night before each class, any review submitted later is automatically marked down by 0.5 points. Reviews done after noon on the day of class get 0 points.

You need to do only 3 readings each week, you can select from among the readings on weeks that there are more than 3 readings assigned.

You will be discussing your reading reviews in each class.

Contemporary Accessibility Discussion (10%)

Each week, we will have a discussion on a contemporary AT-related topic. This could be a news story, a new technology release, legal issues, election agenda, or some popular media item. Students are free to suggest and lead in-class discussions about these topics. Students can propose upto 3 topics of discussion in the process of the class.

Process for discussion:

1. Propose the discussion item on the class mailing list the night before class
2. Prepare 2-3 talking points on why the topic is important, plan to explain anything about the subject that other students may not be familiar with
3. Lead a discussion, encourage your colleagues to discuss the topic.
Group Projects: (40%)

There are two team presentations which are graded for 20 points each. In each case the activity will involve an in-class presentation of 30 minutes (10 points), and a team write-up of the case of upto 5000 words (10 points). Teams can be of upto 4 people for each project.

If students need to be excused from the group projects they need to petition the instructor.

Project 1: In-class technology tutorial (20%)

Students MUST sign up to present on one of the following. Students will be responsible for creating an in-class presentation of 30 min describing their research into the topic and come prepared for a Q/A on the subject matter.

Presentations begin within 4 weeks of classes starting, typical presentations take at least 3 weeks of planning. Students must put in choices 1 and 2 in preference order in the sign up sheet (Links to an external site.).

All groups will be assigned by September 15, 2016. All presentations must be accessible

Students can only choose one from the following

1. iOS in-built accessibility Features (10/13)
2. Screen Readers (10/6)
3. Google Accessibility (10/20)
4. Learning and Cognitive Disability Software (10/20)
5. Voice Relay Services (10/13)
6. Augmentative and Alternative Communication (10/6)

Project 2: Real-world accessibility challenge (20%)

Students will work in self-assembled groups of upto 4 to investigate a real-world accessibility issue of relevance to the Ann Arbor / University of Michigan community. Students must create groups
and discuss their topic with the instructor by Sep 29. In class presentations will take place on Nov 10 and 17.

Example Projects

1. Wheelchair accessibility on campus
2. Shopping/Item labeling for visually impaired persons in Ann Arbor stores
3. Interfaces for UM Medical Center service providers working with spinal cord injuries

Final Paper: (20%)

The final paper will be discussed between students and the professor, since students can choose a project idea based on their tracks/ecumphasis at UMSI, or their field of work in any other department. Students have a deadline of November 10 to inform the instructor of the intended final paper topic. All final papers must be individual submissions unless agreed upon in advance with the professor.

Examples of final papers include:

1. An application of usability techniques to the analysis of an interface for accessibility (HCI)
2. An analysis of accessibility options at public libraries (LIS)

Groups of are allowed for collaborative final paper projects – if these final projects are extensions of the real world accessibility challenge. All final paper ideas need to be discussed with the instructor in person. The word limit for an individual final paper is 3000 words, not including references, the word limit for a group final paper is 5000 words, not including references. Group projects will be held to corresponding standard for output.

Devices in class
The aim is to give you a quality classroom experience that is engaging for you and your classmates, and sadly the distractions on laptops and smartphones can be rather detrimental for a class like this which relies heavily on exchange from the students. As a general rule, we will avoid laptops in class, unless you need it as an access device or find it difficult to take notes without. If you have concerns, I am happy to discuss.

**Accessibility**

If you think you need an accommodation for a disability, please let me know at your earliest convenience. Some aspects of this course, the assignments, the in-class activities, and the way we teach may be modified to facilitate your participation and progress. As soon as you make me aware of your needs, we can work with the Office of Services for Students with Disabilities (SSD) to help us determine appropriate accommodations. SSD (734-763-3000; ssd.umich.edu (Links to an external site.)) typically recommends accommodations through a Verified Individualized Services and Accommodations (VISA) form. I will treat any information that you provide in as confidential a manner as possible.

**DOCTORAL REQUIREMENTS:**

Doctoral students will need to meet me in person to discuss additional requirements.

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**Non-lecture presentations**


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**Sep 8** Course overview

None
Kiper, D (2016). The Deviousness of Dementia, The Guardian / Hope is the Enemy, American Scholar


Petra Kuppers: Disability Culture and Community Performance: Find a Strange and Twisted Shape. London


Dao, James, 2012 Learning to accept, and master, a $110,000 mechanical arm. The New York Times. (Nov. 27, 2012):

Week 2:Discussion Point

Parker, L. (2013) "A Video Game that You can't even see" New Yorker, December 3, 2013
Edson Munsaka & Helen Charnley (2013) ‘We do not have chiefs who are disabled’: disability, development and culture in a continuing complex emergency, Disability & Society, 28:6, 756-769


NPR Series: Unfit for Work: Fresh Air Podcast (Links to an external site.), This American Life: Trends with Benefits (Links to an external site.)


Lloyd Shelton, Eastern Michigan University, Technology and Mobility


Chandrika Jayant, Intel Corp.
Wearable technology and accessibility

Additional Discussion Points

Righting a wrong: NC to pay victims of forced sterilization (Links to an external site.)

Introduction to VoiceOver (Links to an external site.)


Discussion Point – Cochlear Implant Controversy (Links to an external site.)

Comparing Speech Recognition Products, online reviews. Examples:

AAC, Screen Readers

Sile O’Modhrain, Rethinking Braille Displays

Oct 13 Assistive Technology II

Maxi Aids products (Links to an external site.): Discuss any one product


WAI-ARIA Authoring Practices 1.1 (Links to an external site.)

Oct 27
Group project 1 papers due

Accessibility Web

Caitlin Geier, DeQue
Accessibility for the Design Professional

Nov 3 Mobile Accessibility

TWO READINGS THIS WEEK

Lamar Jordan: Accessibility at McDonalds

dementia: A qualitative study using photo documentation and focus group interviews. Dementia, 1471301214555406.


Optional videos

· What’s New in Android Accessibility (Links to an external site.)

· Intro to Android Accessibility (Links to an external site.)

TWO READINGS THIS WEEK

Nov 10 Accessibility industry, conferences overview

Write a single response on home remodeling based on all three of the videos linked:

- Spinal Cord Injury Alberta: Accessible Home Demo (Links to an external site.)
- Spinal Cord Injury: Ingenuity for home adaptation (Links to an external site.)
- This Old House: Accessibility Remodelling (Links to an external site.)
TWO READINGS THIS WEEK

· Accessible Transportation in Japan (Links to an external site.)


Optional: Discussion

Accessibility Reviewing (select any two videos – any number from any set for discussion):

· Wheelchair Jimmy (Links to an external site.)
· Accessible Gamer (Links to an external site.)
· The Blind Spot (Links to an external site.)

Dec 1  Public Sphere Accessibility
Group Project
2 papers due


Video: (commenting on this counts as a reading response)
· Disclosing your disability on Tinder (Links to an external site.)

VLOGS: Select any one video and plan to discuss in class
Rikki Poynter (Links to an external site.)
Tommy Edison (Links to an external site.)
## Assignments Summary:

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<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due by</th>
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<tbody>
<tr>
<td>Wed Sep 7, 2016</td>
<td>Week 1 Readings</td>
<td>11:59pm</td>
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<tr>
<td>Wed Sep 14, 2016</td>
<td>Week 2 Readings</td>
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<td>Wed Sep 21, 2016</td>
<td>Week 3 Readings</td>
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<td>Wed Sep 28, 2016</td>
<td>Week 4 Readings</td>
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<td>Wed Oct 19, 2016</td>
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<td>Thu Oct 20, 2016</td>
<td>In-class technology tutorial</td>
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<td>Wed Oct 26, 2016</td>
<td>Week 8 Readings</td>
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<td>Wed Nov 2, 2016</td>
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<td>Wed Nov 9, 2016</td>
<td>Week 10 Readings</td>
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<td>Thu Nov 10, 2016</td>
<td><a href="#">Real World Accessibility Challenge</a></td>
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<td>Wed Nov 16, 2016</td>
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<td>Sat Dec 10, 2016</td>
<td><a href="#">Class Discussion</a></td>
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<tr>
<td>Mon Dec 19, 2016</td>
<td><a href="#">Final Paper</a></td>
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